

U.S. Patent Application Serial No. **10/520,280**
Amendment filed August 14, 2008
Reply to OA dated May 14, 2008

REMARKS

Claims 1-4 are currently being examined in this application, and stand rejected. Claim 4 has been amended in order to more particularly point out, and distinctly claim, the subject matter to which the applicants regard as their invention. Claim 5 has been added in this response. The applicants respectfully submit that no new matter has been added, and it is believed that these amendments are fully responsive to the Office Action dated **May 14, 2008**.

As a result of this office action, claim 4 stands objected as being in improper form as being a multiple dependent claim depending upon another multiple dependent claim. In response, claim 4 has been amended to depend only upon claims 1 and 2, which are not multiple dependent claims. Also, a new claim 5 is now added depending upon claim 3. The applicants hereby assert that the present scope of claims 4 and 5 are the same as the previous claim 4. Claims 4 and 5 are believed to be in compliance with 37 C.F.R. 1.75(c), and withdrawal of the outstanding objection to claim 4 is respectfully solicited.

The office action rejects claims 1-3, on the ground of nonstatutory obviousness-type double patenting, as being unpatentable over claim 1 of U.S. Patent No. 7,133,344. The office action also asserts that claims 1 and 3 are unpatentable over claims 1 and 2 of U.S. Patent No. 7,106,678 on the ground of nonstatutory obviousness type-double patenting. Herewith this response and amendment,

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a terminal disclaimer has been executed with regards to both rejections. As such withdrawal of this rejection is now in order and respectfully solicited.

The office action rejects claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by Nanba et al. (U.S. Patent No. 5,796,704), with claim 4 not being treated on the merits. The office action specifically asserts that Nanba et al. discloses “wherein the retrieving means retrieves a new boundary value based solely on a boundary value obtained by a previous optimizing processing and not a current power reproduction level,” by “disclosing a new boundary value” (boundary could be at point 100, 98, 96) “based solely on a boundary value obtained by a previous optimizing processing”. The action then cites Figs. 7 and 8, wherein the first boundary point is at 100 when temperature equal to 0 degree, that Figs. 7 and 8 show how Nanba et al. calculates its optimum reproducing, and that another boundary is found in step 4 “and the previous optimizing processing has occur again to find the new boundary for another optimum reproducing power using the optimum reproducing found in step 8; Column 7, line 39 and Column 8, line 42”.

However, the applicants assert that the present application differs from Nanba et al. in the following ways. First, Figs. 5, 7, and 8 of Nanba et al. refer to the relationship between the reproduction signal output and the reproducing laser power. This is not the relationship that the present application seeks to optimize. Instead, the present application seeks to optimize the relationship between the reproduction laser power and the error rate (See Fig. 9), not the

reproduction power signal.

Second, the method of retrieving a new boundary value differs between Nanba et al. and the present application. The present invention retrieves a new boundary value based solely on a boundary value obtained by a previous optimizing processing (See Claim 1). However, the optimization process of Nanba et al. differs significantly. While Nanba et al. does add a predetermined value to obtain its optimization, it does not utilize a previously determined reproducing power value (Nanba et al., column 10, lines 57-65). Instead, it uses the reproducing power W at that time. The use of an instant power value, by definition, is not the same as a power value previously obtained.

Third, the processes of Nanba et al., as shown in Figs. 5, 7, and 8, differ significantly from the present invention. Fig. 7 is a flow chart showing the “whole process of recording and reproducing operations . . . of the invention” (Col. 10, lines 4-6). S1 is a self-diagnosis step (Col. 10, lines 6-8). S2 is the calibrating process of the reproducing laser, as described in Fig. 8 (Col. 10, lines 8-10 and 42-44).

The present invention does not need to retrace the entire previous calculation, as is required in Nanba et al. The calibrating process of S2 of Fig. 7 begins with measuring a test zone, S1 of Fig. 8 (Col. 10, lines 44-47). Here, Nanba et al. states that:

“After the measurement data which is used for calibration was

recorded, the track for measurement can be also reproduced every time, or the track on which the data has already been written can be also used as a track for measurement.” (Col. 10, lines 47-51).

This is fundamentally different from the invention of the present disclosure. According to Nanba et al., in order to recalibrate the optimal laser power, measurement would need to occur over the whole “track for measurement”. Instead, the present invention begins with a previously determined optimal power. The present invention does not need reproduce or retrace a previously performed calculation for this step.

Nanba et al. also differs from the present invention in that the initial power value for each calculation is not static as it is in Nanba et al. S2 of Fig. 8 (not to be confused with S2 of Fig. 7) sets the reproducing laser to W0 (Col. 10, lines 51-53). W0 has a particular preset value being 1.0 mW, as described at Col. 10, lines 52-53. This again is in contrast to the present invention, whereby the corresponding W0 would be a value determined through a previous optimization.

In S4, of Fig. 8, the present output level is compared with a previous output level from S3. The present output level however of Nanba et al., begins presumably always at W0, which is absolutely defined from Col. 10, lines 52-53. This step does not occur in the present invention. Instead, the calculation begins at the previously defined optimal power, which is compared against itself, not a previous optimization curve. This reduces the amount of time necessary to calibrate the power. This may be the most critical point in traversing the rejection successfully, because the

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power is varied to determine the optimal power seems to be similar from this point on (the power is varied by a predetermined value until the optimal power is reached.

Fourth, Nanba et al. and the present invention differ by the final determination of the optimal power. In calculating the optimal power in step S6 of Fig. 8, Nanba et al. finds the point when the preceding level is higher than the present level (S4), and then adds a predetermined (presumably programmed) power W_C to the calculated power W ($W + W_C = \text{Optimum Reproducing Power}$ as shown in S6 of Fig. 8). In contrast, once the present invention finds its lowest state (that is where the error begins to increase instead of decrease), the process returns back one step to where the lowest error value occurred. There is no predetermined value (W_C) added. The elimination of this step produces a more accurate result, saves time, and provides a benefit not associated with Nanba et al.

For a reference to anticipate a claim as to render the claim unpatentable, each and every element of the claim must be found within that reference. MPEP 2131. In view of these remarks, Nanba et al. does not disclose each and every element of claims 1-3, and as withdrawal of the outstanding § 102 rejection is now in order and respectfully solicited.

In view of the aforementioned amendments and accompanying remarks, Claims 1-5 are in condition for allowance, which action, at an early date, is requested.

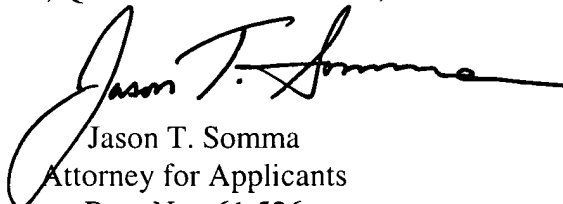
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If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees that may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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